

experience. This is the real raw material, the medium with which I work. Western science has decided it is desirable to isolate the senses in order to study them, but much of my work has been aimed at putting it all back together. So field perception is the awareness or sensing of an entire space at once. It is based on a passive, receptive position, as in the way we perceive sound, rather than an aggressive, fragmented one, as in the way our eye works through the narrowing function of focused attention. This perception is linked more to awareness than to momentary attention.

I have learned so much from my work with video and sound, and it goes far beyond simply what I need to apply within my profession. The real investigation is that of life and of being itself; the medium is just a tool in this investigation. I am disturbed by the over-emphasis on technology, particularly in America—the infatuation with high-tech gadgets. This is also why I don't like the label "video artist." I consider myself to be an artist. I happen to use video because I live in the last part of the twentieth century, and the medium of video (or television) is clearly the most relevant visual art form in contemporary life. The thread running through all art has always been the same. Technologies change, but it is always imagination and desire that end up being the real limitations. One of my sources of inspiration has been the thirteenth-century Persian poet and mystic, Rumi. He once wrote, "New organs of perception come into being as a result of necessity. Therefore increase your necessity so that you may increase your perception."

## The Sound of One Line Scanning

"Our greatest blessings come to us by way of madness."

—Socrates

The ancient Greeks heard voices. The homeric epics are full of instances of people guided in their thoughts and actions by an internal voice to which they responded automatically. This suggests a people, as Julian Jaynes has pointed out, not fully exercising what we would consider free will or rational judgement.<sup>1</sup> As with most of us, there was a conversation going on in their heads, but it was not with themselves. Jaynes calls this distant mental landscape the "bicameral mind," and claims that, prior to the transition period of the Greeks, all ancient cultures were not fully conscious as we know it. In other words, they possessed many gods. Today we are suspicious of persons exhibiting such behaviors, forgetting that the term hearing refers to a kind of "obedience" (the Latin roots of the word are *ob* plus *audire*, or "to hear facing someone"). So rooted is our need for the concept of the independent mind, that we categorize those hearing voices as: a) mildly amusing, b) a poet, or c) confined to a mental institution. A possible fourth category might be "watching television." The prophets and gods have departed our world and the confused chatter in their wake must now be exorcized by someone called a "therapist."

"A woman named Be was alone in the bush one day in Namibia, when she saw a herd of giraffes running before an approaching thunderstorm. The rolling beat of their hooves grew louder and mingled in her head with the sound of sudden rain. Suddenly a

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1. Julian Jaynes, *The Origin of Consciousness in the Breakdown of the Bicameral Mind* (Boston: Houghton Mifflin Co., 1976).



song she had never heard before came to her and she began to sing. Gauwa (the great god) told her it was a medicine song. He went home and taught the song to her husband Tike. They sang and danced it together. And it was, indeed a song for trancing, a medicine song. Tike taught it to others who passed it on.

—!Kung Bushman story from Botswana,  
as told to Marguerite Anne Bieselee<sup>2</sup>

Consciously or unconsciously, most people assume the existence of some sort of space when discussing mental functioning. Concepts and terms for the manipulation of solid objects are constantly used to describe thoughts, as in “the *back* of my mind,” “*grasp* an idea,” “*over* my head,” “*cling* to beliefs,” “a mental *block*,” and so on. This mental space is directly analogous to the “data space” in our first brain-child, the computer, being the field in which calculations occur and where the virtual objects of digital graphics are created, manipulated, and destroyed. Like a fundamental ontology, this given space is perpetually before or after what is done, an *a priori* existence from birth in the flip of a switch until the lights finally go out. If there is a space of thinking, either real or virtual, then within it there must also be sound, for all sound seeks its expression as vibration in the medium of space. The acoustic properties of this space, then, become the subject of this article.

To the European mind the reverberant characteristics of the interior of the Gothic cathedral are inextricably linked with a deep sense of the sacred and tend to evoke strong associations with both the internal private space of contemplation and the larger realm of the ineffable. Dream-image or flashback sequences in cinema have often utilized reverberation effects in the sound-track to signify both subjectivity and detachment. Cathedrals, such as Chartres in France, embody concepts derived from the rediscovery of the works of the ancient Greeks, particularly those of Plato and Pythagoras, and their theories of the

correspondence between the macrocosm and the microcosm, expressed in the language of sacred number, proportion, and harmony, and that manifest themselves in the science of sound and music. These design concepts were not considered to be the work of man, or merely functions of architectural practice, but represented the divine underlying principles of the universe itself. By incorporating them into the body of the church it was intended to establish a harmonic reflection of their form here on earth.

Chartres and other edifices like it have been described as “music frozen in stone.” References to sound and acoustics here are twofold. Not only are there the actual sonic characteristics of the cavernous interior, but the form and structure of the building itself reflects the principles of sacred proportion and universal harmony—a sort of “acoustics within acoustics.” When one enters a Gothic sanctuary, it is immediately noticeable that sound commands the space. This is not just a simple echo effect at work, but rather all sounds, no matter how near, far, or loud, appear to be originating at the same distant place. They seem to be detached from the immediate scene, floating somewhere where the point of view has become the entire space.

Ancient architecture abounds with examples of remarkable acoustic design—whispering galleries where a bare murmur of a voice materializes at a point hundreds of feet away across the hall, or the perfect clarity of the Greek amphitheaters where a speaker, standing at a focal point created by the surrounding walls, is heard distinctly by all members of the audience. Modern techniques of architectural acoustics, pioneered at the turn of the century by people such as Wallace Sabine, were derived in response to the severe unintelligibility of sound and lack of clarity due to room reverberation. This is doubly ironic, both in terms of the 2000-year-old Greek theater and the fact that the acute reverberation in the Gothic cathedral, although a result of construction and not specific intention, was considered an essential part of its overall form and function.

The science of acoustics is the study of sound in space. It assumes strong architectural associations because, although it can be described as simply the study of the behavior of sound waves, sound manifests itself at its most complex and interesting when bouncing off solid forms,

2. Recounted in Joseph Campbell, *The Way of the Animal Powers* (San Francisco: Harper and Row, Alfred Van Der Marck Editions, 1983), 163.



most noticeably those of man-made interior spaces. In the rural world of the Middle Ages, it is doubtful that the awesome reverberations inside the cathedral had ever been heard before by the members of the clergy. A partial list of some of the most basic physical phenomena studied by acousticians reads like a set of mystical visions of nature.

**Refraction:** The bending of soundwaves due to a change in speed as they pass through different media, such as two layers of air of different temperatures. At Queen Victoria's funeral in London in 1901, rounds of artillery were fired and, although not heard in the surrounding countryside, the loud roar of cannons suddenly materialized 90 miles away.

**Diffraction:** Sound turning a corner, when the edge of a barrier generates a new series of waves. We hear invisible persons talking on the other side of a high wall.

**Reflection:** The rebounding of soundwaves off a surface, the angle at which they bounce off being equal to the angle at which they arrive. With multiple surfaces this becomes an echo, and it is then possible to hear one's own voice, possibly multiple times, as it existed at a previous point in time. One can sing with one's self. Multiple regular reflections produce the conditions of reverberation, where a sound can be repeated over and over on top of itself, the past becoming indistinguishable from the present.

**Interference:** Two sounds collide with each other, the wavefronts of each alternately reinforcing and inhibiting themselves. In a large hall the sound of a loud instrument suddenly drops to a barely audible whisper at a certain location in the room.

**Resonance:** Soundwaves reinforce themselves, either by the addition of an identical sound or when the material properties or spatial dimensions match the physical shape of the soundwaves themselves. A singer's voice becomes louder, gaining energy when released into a small enclosure, or an object produces a specific tone when struck. The shape and materials of an object represent a frozen sound potential.

Sympathetic Vibration, related to resonance and possibly the most evocative of all: When a bell is struck another one across the room begins vibrating, giving off the same sound.

Each of these phenomena evokes wonder, even after their scientific representations have been rationally understood. There is something of the immortal in an echo, for example: we can easily imagine an ultimate state of reverberation—a space where everything that has ever happened continues to exist—the end of time, where everything is live, perpetually present. If we sense that the description of sympathetic vibration bears some resemblance to radio broadcast, it is no coincidence, the same principle is at work. The processes of contemporary media systems are latent in the laws of nature—they have existed in various forms since the beginning of history.

We can also see, in resonance, that all objects have a sound component, a second shadow existence as a configuration of frequencies. In 1896, Nikola Tesla, one of the great geniuses of the electrical age, strapped a small oscillating motor to the central beam in his Manhattan laboratory and built up a powerful physical resonance that conducted through the building and into the earth, to cause an earthquake in which buildings shook, panes of glass broke and steam pipes ruptured over a 12-block area. He was forced to stop it with a blow from a sledge hammer. Tesla stated that he could calculate the resonant frequency of the earth and send it into strong vibration with a properly tuned driver of adequate size and specific placement.<sup>3</sup>

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“Palongawhoya, traveling throughout the earth, sounded out his call as he was bidden. All the vibratory centers along the earth's axis from pole to pole resounded his call: the whole earth trembled: the universe quivered in tone. Thus, he made the whole world an instrument of sound, and sound an instrument for carrying messages, resounding praise to the creator of all.”<sup>4</sup>

—Hopi Indian myth of the creation of the First World

3. Described in John J. O'Neill, *Prodigal Genius: the Life of Nikola Tesla* (New York: Ives Washburn Inc., 1944), 159–62.

4. Frank Waters, *Book of the Hopi* (New York: Ballantine Books, 1963), 5.



"In the beginning was the Word . . ." provokes one to ask, where was the image? But like the Biblical creation myth, Indian religion (for example Yoga and Tantra) and later Asian religions (for example Buddhism) also describe the origin of the world in sound, with the original creative potency still accessible to the individual in the form of sacred speech and chanting (sympathetic vibrations). This idea of the origin of images in sound is mirrored in the invention and development of communication technology. In the age of the electronic image, it is easy to forget that the earliest electrical communication systems were designed to carry the word. For example, Edison initially tried to market the phonograph to the business community as an automated replacement for the stenographer in the office. If speech is the genesis of the media body electric—the telegraph and the subsequent systems of the telephone, radio, and television—then acoustics (or general wave theory) is the basic structural principle of its many manifestations.

The video image is a standing wave pattern of electrical energy, a vibrating system composed of specific frequencies, as one would expect to find in any resonating object. As has been described many times before, the image we see on the surface of the cathode ray tube is the trace of a single moving focused point of light from a stream of electrons hitting the screen from behind, causing its phosphor-coated surface to glow. In video, a still image does not exist. The fabric of all video images, moving or still, is the activated, constantly sweeping electron beam—the steady stream of electrical impulses coming from the camera or video recorder. The divisions into lines and frames are solely divisions in time, the opening and closing of temporal windows that demarcate periods of activity within the flowing stream of electrons. Thus, the video image is a living dynamic energy field, a vibration appearing solid only because it exceeds our ability to discern such fine slices of time.

All video has its roots in the live. The vibrational acoustic character of video as a virtual image is the essence of its "liveness." Technologically, video has evolved out of sound (the electromagnetic) and its close association with cinema is misleading since film and its grandparent, the photographic process, are members of a completely different branch of the genealogical tree (the mechanical/chemical). The video camera, as an

electronic transducer of physical energy into electrical impulses, bears a closer original relation to the microphone than to the film camera.

The original television studio was a hybrid of radio, theater, and cinema. Its images existed in the present tense. Its construction was based on the radio studio with the isolated control room behind glass, "on air" signs, and cameras placed out on the floor to pick up the action. The structure of the elements in the studio can also be viewed as the physical embodiment of the aesthetics of cinema, an ingenious solution to the "limitation" of having to exist live. Multiple cameras, usually three (representing film's classic long, medium, and close-up shots), view the action from their individual points of view. Unlike cinema, where activity within a given scene must give the illusion of simultaneity and sequential time flow, with the action often shot out of order, video represents a point of view that is literally shifted around the space in the present tense, parallel to the action. The illusion that video had to work very hard to create was one of recorded time, doing so only where necessary by using different parts of the studio in combination with different lighting effects. Direct translations of a sister art form of present-tense time, the theater, were used to format early television dramas and many of the burlesque-like variety shows. They were almost always performed in a theatrical setting with a live audience, who functioned as surrogate home viewers until later replaced by the laugh-track and applause machine.

The fundamental aspect of cinema, the montage (an articulation in time), was interpreted by the fundamental aspect of early television, the live (an articulation in space), in a key piece of equipment in the studio, the video switcher. This was the central creative device for organizing what was finally to be seen by the viewer at home. The basic elements of cinematic language were hard-wired into its design. A simple switch button represented Eisenstein's paramount montage, the cut, and with a switch on each camera, cuts could be made to any point of view desired. Griffith's fade to black became a gradual reduction in signal voltage with a variable potentiometer. Wipes and split-screens were translated by engineers into circuit designs to electronically interfere with and offset the regular voltages in the signal flow, the most symmetrical stationary wipe patterns being harmonic



overtones of the fundamental frequencies of the basic video signal. Thus, without the ability to record, a simulation of cinematic edited time was constructed by a live electronic instrument.

It was not until the late 1960s that this emulation of cinema was broken, when artists began poking beneath the surface to uncover the basic characteristics of the medium and release the unique visual potential of the electronic image, now taken for granted with a yawn, and oftentimes a grimace, as standard TV fare. The video switcher was redesigned into the first video synthesizer. Its principles were acoustic and musical, a further evolution of early electronic music systems such as the Moog. The videotape recorder was the last link in the chain to be developed, coming a good decade after the arrival of television and only fully integrated into video's image processing system with the introduction of the time-based corrector in the early 1970s. With the seamless incorporation of recorded material into the image stream, and the advancements of electronic editing, a need arose to identify remote feeds specifically as "live." Not only did video begin to look and act like cinema, but it began to look and act like everything else—fashion, conversation, politics, visual art, and music.

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"A single neuron operates on the power of about a thousandth-millionth of a watt. Hence, the entire brain operates on about ten watts."<sup>5</sup>

—Sir John Eccles

Musically speaking, the physics of a broadcast is a type of drone. The video image perpetually repeats itself without rest at the same set of frequencies. This new common condition of the drone represents a significant shift in our culturally derived thought patterns. It can be evidenced by contrasting another drone-based system, traditional Indian music, with our own European classical music.

Western music builds things up, piling notes on top of notes, forms on top of forms, in the way one would construct a building, until at last the piece is complete. It is additive: its base is silence, all musical sounds proceed from this point. Indian music, on the other hand, begins

5. Sir John Eccles, "The Physiology of the Imagination," *Scientific American* (1958).

from sound. It is subtractive. All the notes and possible notes to be played are present before the main musicians even start playing, stated by the presence and function of the tambura. A tambura is a drone instrument, usually of four or five strings, that, due to the particular construction of its bridge, amplifies the overtone or harmonic series of the individual notes in each tuned string. It is most distinctly heard at the start and end of the performance, but is continually present throughout. The series of overtones describes the scale of the music to be played. Therefore, when the primary musicians play, they are considered to be pulling notes out of an already ongoing sound field, the drone.

This music structure reflects the Hindu philosophical concept of the origin of all things in sound, represented by the essential vibration "Om," which is believed to be always present, without beginning or end, everywhere in the universe, generating all forms of the phenomenal world. In the music, there is great emphasis on tuning, while the philosophers speak of "tuning the individual" as a means to contact and replenish these fundamental energies. The idea of a sound field that is always present shifts the emphasis away from the objects of perception to the field on which the perception is occurring; a nonspecific viewpoint.

As a drone, video's significant aspect is that its electronic images exist everywhere at once, the receiver is free to pull the signal out of the line at any given point along its path or at any location out in the broadcast field. Children have been known to pick up radio signals in their dental braces, a contemporary manifestation of "speaking in tongues." The "space" of broadcast recalls the acoustic space of the Gothic cathedral, where all sounds, no matter how near, far, or loud, appear to be originating at the same distant place. They seem detached from the immediate scene, floating somewhere where the point of view has become the entire space. In technology, the current shift from analog's sequential waves to digital's recombinant codes further accelerates the diffusion of the point of view. Like the transformation of matter, there is a movement from the tangibility of the solid and liquid states into the gaseous. There is less coherence, previously solid barriers become porous, and the perspective is that of the whole space, the point of view of the air.



Within several weeks of launching its satellite, Brazil established communication links with all corners of the country and mapped every square mile of one of the largest uncharted territories left on the planet, the Amazon basin. One can now, theoretically, make a phone call relaying one's position from anywhere in the jungle, and even watch "Dynasty" if a TV set and generator are on hand. A system is already in place in the United States for new cars, where the vehicle's position and direction can be relayed to a navigational satellite that can pinpoint its location and display it on an electronic map on a dashboard screen. On the map every street in the country is selectable in varying scales down to a few blocks, with all the individual street names noted. It is now impossible to get lost—a disturbingly boring thought, not to mention a paranoid one.

In the late twentieth century, the Unknown, the "other side of the mountain," so central to the structure of our thoughts, has ceased to exist in geographic spatial terms. By the early 1980s the entire surface of the earth had been satellite-mapped down to a resolution of 30 feet or more. This "Known" of everything creates some bizarre new models of consciousness, such as the military's computer navigation system where there is no direct sensory link to the outside world. Here, a jet rocket can travel at high velocities, hugging the landscape, while relying solely on information of the precise terrain and features ahead stored in the on-board computer memory: data gathered again from satellite remote sensing. Memory replaces sensory experience; a Proustian nightmare.

Space without a container is the mental world of thoughts and images. Many of the techniques of the shaman rely on gaining a masterful, uncanny control over one's "point of view," a realization that a point of view is not necessarily synonymous with physical position. Mircea Eliade, tracing the origins of religious thought, suggests that the emergence of upright posture reorganized consciousness along the vertical axis, initiating the existence of the four cardinal directions of space (front, back, left, right, with the possible addition of two more, up and down) and, along with it, the privileged center, the self ego

6. Mircea Eliade, *A History of Religious Ideas*, Vol.1 (Chicago: University of Chicago Press, 1978), 3.

Ptolemaic focal point thus implied.<sup>6</sup> The four-walled, six-faceted room is the archetypal distillation of this mental foundation, and Brunelleschi's perspective, an urban fabrication, further articulates it. The mind is not only confined by three-dimensional space, it creates it.

Hard walls, with their recursive enclosing reflections, are dissolving into the transparent spaces of information architecture. The same mathematics that describe an acoustically flat non-reverberant space, a "neutral" room completely void of echos or reverberation, also describe a large expansive plain. The term "flat" is used in both situations. For the Native Americans who once inhabited the open plains, or the Aboriginal peoples of the Australian desert outback, there are no *acoustics* as such. Their acoustic spaces are internal.

"When a man is far away down on the plain and I am on the hill, I look towards him while I am quietly talking to myself. He sees me and turns towards me. I say, 'Do you hear?' I move my head from side to side glaring at him, and at last I stare at him, and then turning I say, 'Come on, quickly,' As I stare at him fixedly, I see him turn as he feels my stare. He then turns and looks about while I continue staring at him. So I say, 'Walk this way, right along, where I am sitting.' Then he walks right up to me where I am sitting behind a bush. I draw him with my power (miwi). You do not see any hand signs or hear any shouting. At last he comes up and nearly falls over me. He says, 'You talked to me and I felt it. How did you talk so?' I explain, and he adds: 'I felt your words while you were talking to me, and then I felt that you are there.' I answer, 'True, it was in that way that I talked to you, and you felt those words and also that power.'"<sup>7</sup>

—Australian Aboriginal medicine man, as told to  
Ronald M. Berndt, Lower Murray River, Australia

As the telegraph and subsequent "wireless" communication technologies were provoked by a response to the separation of individuals over

7. Quoted in A. P. Elkin, *Aboriginal Men of High Degree* (St. Lucia, Australia: University of Queensland Press, 1977), 45.



the vast spaces of the New World, so thought transference and "seeing at a distance" for the Aborigines are a manifestation of the vastness and stillness of the Australian desert. Desert solitude is an early form of visionary technology. It figures strongly in the history of religion. Individuals have used it to hear the voices of the past and future, to become "prophets," to receive images or, for Native Americans, to host "vision quests." It seems that when all the clutter and noise of everyday life is reduced to such brutal minimalism, the usual "control valves" are released and images well up from within. The boundary between the software of the private interior and the hardware of the exterior landscape is blurred; their forms intermingle and converse.

Evidence of synaesthesia, the crossover between and interchangeability of the senses, has been reported in individuals since the earliest civilizations. It has been particularly evocative for the artists who have dreamed of the unification of the senses, and there are many examples in recent art history, ranging from the Russian composer Scriabin's chromatic piano, which played colors from a keyboard, to the nausea of the *son et lumière* shows of public tourism. Visual artists have often described hearing music or sounds when they work, as composers have mentioned perceiving their music in imagistic form.

"My whole imagination thrilled with images; long lost forms for which I had sought so eagerly shaped themselves ever more and more clearly into realities that lived again. There rose up soon before my mind, a whole world of figures, which revealed themselves so strangely and plastic and primitive, that, when I saw them clearly before me and heard their voices in my heart, I could not account for the almost tangible familiarity and assurance in their demeanor."<sup>8</sup>

—Richard Wagner

Synaesthesia is the natural inclination of the structure of contemporary media. The material that produces music from a stereo sound

8. Richard Wagner, *My Life* (New York: Dodd and Mead, 1911), quoted in C.E. Seashore, *Psychology of Music* (New York: Dover Publications Inc., 1967 reprint of 1938 original), 166–7.

system, transmits the voice over the telephone and materializes the image on a television set is, at the base level, the same. With the further implementation of digital codes to bring personal banking, buying gas, cooking with the microwave, and other functions into this same domain, there will be an even more extensive common linguistic root.

Efforts with artificial technology have made it necessary to distinguish between synaesthesia as an artistic theory and practice, and synaesthesia as a genuine subjective ability or involuntary condition for certain individuals. There is a natural propensity in all of us to relate sound and image. The beauty of these experiences is in their fluid language of personal imagination, and in their ties to mood and moment. As long as their individual subjective nature is understood, that is, that they can never become conventional, we will be spared the tedium of the dogma and proprietary theorizing of the practitioners, from the visual musicians to the music videoists.

The free-translation between all sensory modalities, however, is only the first stage toward the transcendence of the ultimate barrier between the domains of the physical body and the luminous mind. In extreme cases, this physical threshold has been crossed. E. Lucas Bridges, son of a late nineteenth-century Christian missionary living with the Ona, an indigenous people of Tierra del Fuego, gives a vivid example:

"Houshken . . . broke into a chant and seemed to go into a trance, possessed by some spirit not his own. Drawing himself up to his full height, he took a step toward me and let his robe, his only garment, fall to the ground. He put his hands to his mouth with a most impressive gesture and brought them away again with his fists clenched and thumbs close together. He held them up to the height of my eyes, and when they were less than two feet from my face drew them apart. I saw that there was now a small, almost opaque object between them. It was about an inch in diameter in the middle and tapered away into his hands. It might have been a piece of semi-transparent dough or elastic, but whatever it was it seemed to be alive, revolving at great speed, while Houshken, apparently from muscular tension, was trembling violently.



"The moonlight was bright enough to read by as I gazed at his strange object. Houshken brought his hands further apart and the object grew more and more transparent, until, when some three inches separated his hands, I realized it was not there anymore. It did not break or burst like a bubble; it simply disappeared, having been visible to me for less than five seconds. Houshken made no sudden movement, but slowly opened his hands and turned them over for my inspection. They looked clean and dry. He was stark naked and there was no confederate beside him. I glanced down at the snow, and, in spite of his stoicism, Houshken could not resist a chuckle, for nothing was to be seen there."<sup>9</sup>

When the first technologies of image and sound codified the functioning of the human senses into a surrogate artificial form, a tremendous and unpredictable understanding was gained of the operations of human perception. Similarly, as the implementation of the computer becomes an embodiment of mind, the new links to the "mind stuff" of digital data processing will certainly provide even more potent translation possibilities beyond basic sensory inputs. Although it is tempting to ponder a possible synaesthetic "putting back together" of science's discrete perceptual and cognitive compartments, inspired by these electronic free and fluid interchanges of our ways of seeing, what seems to be emerging at the moment is the amnesia and anaesthesia of a vast, cluttered, and confused landscape of image fragments, a semiotician's field-day of delights.

This condition of our contemporary media culture is hauntingly embodied in a single individual of the early twentieth century, a remarkable mnemonist to whom all sensory modalities were fluidly and uncontrollably connected; who was assaulted by a barrage of images and associations that remained for hours, days, or even years; who constantly found that the distinctions between the past (memory), the present (sensate experience), and the future (fantasy) were blurred or non-existent. The great Russian brain researcher A. R. Luria

conducted a 30-year study of this disturbingly prophetic character, whom he called simply S.

Luria described S flawlessly reciting dozens of pages of text filled with everything from a narrative story to a foreign language he did not speak, complex scientific terms, or even nonsense syllables. His memory was also spatial—he could remember the positions of the individual elements on the page or blackboard in any order presented, and did so even when asked to repeat them years after the original tests. When he was a child, his imagery of school was so real that he sometimes failed to get out of bed to get ready to go. A characteristic of S's inner world that greatly impressed Luria was his effortless ability at synaesthesia, a fact that Luria realized was precisely the reason that he was able to perform such amazing feats of recall. S described his procession of thoughts:

"I heard a bell ringing. A small round object rolled right before my eyes ... my fingers sensed something like rope. ... Then I experienced a taste of salt water ... and something white."

"I'm sitting in a restaurant—there's music. You know why they have music in restaurants? Because it changes the taste of everything. If you select the right kind of music, everything tastes good. Surely people who work in restaurants know this."<sup>10</sup>

Gradually it became impossible for S to function:

"I always experience sensations like these. When I ride in a trolley I can feel the clanging it makes in my teeth. So one time I went to buy some ice cream, thinking I'd sit there and eat it and not have this clanging. I walked over to the vendor and asked her what kind of ice cream she had. 'Fruit ice cream,' she said. But she answered in such a tone that a whole pile of coals, of black cinders, came bursting out of her mouth, and I couldn't bring myself to buy an ice cream after she'd answered that way. ... Another thing ... if I read when I eat, I have a hard time understanding what I'm reading—the taste of food drowns out the sense."<sup>11</sup>

10. A.R. Luria, *The Mind of the Mnemonist* (New York: Basic Books, 1968), 81–2.

11. *Ibid.*, 159.

9. E. Lucas Bridges, *The Uttermost Ends of the Earth* (New York: E.P. Dutton, 1948), quoted in Joseph Campbell, *The Way of the Animal Powers* (San Francisco: Harper and Row, Alfred Van Der Marde Editions, 1983), 163



As he grew older, S's inability to forget began seriously to affect his life, and he eventually quit his job and began a life of exhibiting himself as a public attraction. Luria commented on the difficulty of compiling a final report on his subject, since during the sessions images would come into S's mind that constantly slipped him out of control and he would begin to "operate automatically," becoming verbose, his mind cluttered with details and irrelevances as he digressed endlessly. S lived with an image stream that he could not turn off. Out of his possession of a super-human indelible memory he developed an overwhelming, disturbing sense of everything being temporary.

If S had been an ancient Greek, he might have been one of the most extraordinary individuals that the culture had produced. Instead, he ended up as a contemporary tragic hero, immortalized in the pages of scientific journals, his experiences sometimes reading as the vengeful curse of a bad music video director. Today, our self-created media systems offer us creative potential previously available only to individuals with special powers. The synaesthetic possibilities in the sensory and conceptual domains are inspiring, but instead, as victims of "sane" communicators with equally "sane" imaginations, we are becoming like Luria's mnemonist—overwhelmed and incapacitated by rootless images and amplified voices. It is the village "seer" that we sense the absence of, not the formal structures of efficient information management systems and professional communicators.

Artists, poets, composers, and scientists who have heard the voices know that they are not mad—their work testifies to this fact. However, severe mental breakdown can be a type of occupational hazard for persons working at the boundary of commonly accepted consensus reality; a space culturally fabricated by the perceptual conventions imposed by the structuring devices of language, customary behavior, and forgotten histories. Creative "madness" might simply be a disorder of history, "cured" by the passage of time, as visionary insights become the commonplace facts of culture. In all their sessions, S never once said that he thought himself possessed by madness. He once told Luria that until he became an adult and got his first job, he just assumed that everyone's mind functioned in exactly the same way his did.

"All men are capable of having dreams and seeing visions."

—William Blake (1757–1827)

## Interpreting a Broken Wineglass 1988

The question of explaining or interpreting art is a complex and profound one that will not be answered (if it is indeed answerable at all) by critical theorizing, or dialogues such as this one, or one more major thematic art exhibition. Rather, any hope for its articulation is to be found in the practical and functional results of a cultural crisis, a genuine cultural shift that becomes reflected in the actual work, physical efforts and intuitive responses of artists and other creative individuals. One point of interest here is that the further afield from Western industrial culture's ideas of art we go, for example into the highlands of New Guinea, the villages of Bali, the Buddhist monasteries of Tibet, or even the European Renaissance cathedrals of 400 years ago, the need for "explaining" art, and the complementary condition of an alienated and bewildered public, disappears. So "explaining" contemporary art and educating the public can be seen as a particularly modern problem. The confusion and bewildering plurality of images, ideas, and styles in this period, which cause many to feel overwhelmed, is a necessary condition of change and reconfiguration, as some artists and organizers alike are recognizing that the reestablishment of the broken link between art and the public, the restoration of art to a functional place in people's lives, is a necessity for the practical survival of a living art practice.

When I think of how to explain much of contemporary art to the public, the first thing I would recommend would be to inform them as clearly as possible, in published reports, articles, and TV programs, the precise figures of the costs of artworks in today's market and exactly how much individual works are selling for. This would certainly help my parents, for one, to understand what all the fuss is about certain works they see from time to time. It will also serve to explain to the general audience the behavior and rationale of a great many artists and art professionals, and to give a value to artworks to a public which

First presented as part of a panel discussion entitled "Contemporary Art: Intent and Interpretation" at the National Art Education Association conference in Los Angeles on April 9, 1988. The topic for discussion was "Can contemporary art be explained and interpreted, and what is the role of the artist's intentions in such efforts?"



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*Sodium Vapor (including Constellations and Oracle)*, 1979, videotape,  
color, stereo sound, 15:14 minutes. Photo: Kira Perov.

Cover: Bill Viola in *What Is Not and That Which Is* (detail), 1992, video/  
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